

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions, and listing of claims in the application:

LISTING OF CLAIMS:

Claim 1 (Currently amended) A high-efficiency controller of a gas-filled light producing tube, comprising:

a logic integrated circuit controlled and oscillated using by the pulse width modulation, ~~being provided~~ for transforming direct electric currents current supplied from a power source into output signals in a form of ~~outputs of~~ high-frequency sine waves (1.414); and

a power amplifying circuit formed by a pair of transistors respectively coupled to a pair of outputs of the logic integrated circuit to provide a push-pull configuration; and

a transformer electrically connected to ~~an a pair of outputs terminal~~ of the logic integrated circuit controlled and oscillated by the pulse width modulation of the power amplifying circuit for supplying ~~currents of voltages~~ current and voltage as needed by a load.

Claim 2 (Original) The high-efficiency controller of a gas-filled light producing tube as claimed in claim 1, wherein the load is a gas-filled light producing tube.

Claim 3 (Currently amended) The A high-efficiency controller of a gas-filled light producing tube, comprising: as claimed in claim 1, wherein

a logic integrated circuit controlled and oscillated using pulse width modulation for transforming direct electric current supplied from a power source into output signals in a form of outputs of high-frequency sine waves;

a power amplifying circuit coupled to an output of the logic integrated circuit;

a transformer electrically connected to an output of the power amplifying circuit for supplying current and voltage as needed by a load; and,

a subsidiary power circuit is connected to both the logic integrated circuit controlled and oscillated by the pulse width modulation and the transformer for loop-supplying continuously the currents to the power source to the logic integrated circuit.

Claim 4 (Currently amended) The high-efficiency controller of a gas-filled light producing tube as claimed in claim 1, wherein an overload protective circuit is connected to both the logic integrated circuit controlled and oscillated by the

~~pulse width modulation~~ and the transformer for ~~making~~ ~~shutting down~~ the logic integrated circuit ~~controlled and oscillated by the pulse width modulation stop working when responsive to an occurrence of an overload happens.~~

Claim 5 (Currently amended) The high-efficiency controller of a gas-filled light producing tube as claimed in claim 1, wherein an idle disconnection circuit is connected to both the logic integrated circuit controlled and oscillated by the pulse width modulation and the transformer for making shutting down the logic integrated circuit controlled and oscillated by the pulse width modulation stop working in either responsive to an occurrence of** one of a condition of power of the transformer being cut off and a condition of the transformer being in idle motion.

Claim 6 (The high-efficiency controller of a gas-filled light producing tube, comprising: as claimed in claim 1, wherein

a logic integrated circuit controlled and oscillated using pulse width modulation for transforming direct electric current supplied from a power source into output signals in a form of outputs of high-frequency sine waves;

a power amplifying circuit coupled to an output of the logic integrated circuit;

a transformer electrically connected to an output of the power amplifying circuit for supplying current and voltage as needed by a load; and,

a grounding protective circuit is connected to both the logic integrated circuit ~~controlled and oscillated by the pulse width modulation~~ and the transformer for ~~make shutting down~~ the logic integrated circuit ~~controlled and oscillated by the pulse width modulation~~ stop working in either responsive to an occurrence of one of a grounding condition and contact with a human body's contact body.

Claim 7 (Cancelled).